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INDIAN NOTES AND MONOGRAPHS

Miscellaneous Series No. 56

TLAPACOYA POTTERY IN THE MUSEUM COLLECTION

BY

MURIEL PORTER WEAVER

NEW YORK
MUSEUM OF THE AMERICAN INDIAN
HEYE FOUNDATION
1967

REVIEW COPY

Interior of a white "grater bowl." (23/4953). Rim diameter: 28.5 cm.; height: 5.5 cm.

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LIBRARY OF CONGRESS CARD NO. 67-27950

PRICE: \$3.50

PRINTED IN GERMANY

BY J.J. AUGUSTIN, GLÜCKSTADT

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PREFACE

I have been particularly interested in the Formative or Preclassic Period of the Valley of Mexico since participating in the initiation of the Tlatilco project in 1947 and 1948. Tlapacoya, the subject of this study, is an allied Valley site, but as yet not extensively excavated. Also located on the former shore of Lake Texcoco, it lies east and south of Tlatilco. Handsome figurines large and small, some rather similar to those of Tlatilco, have been finding their way into hands of private collectors and dealers. A short excavation was undertaken by the Instituto Nacional de Antropología e Historia in 1955, but judging from sporadic finds unearthed since, I feel there is still much to learn about the site.

When I heard that the Museum of the American Indian had a sizeable collection of Tlapacoya material, I was anxious to have a look at it. The study that follows is a report of this particular collection, whose history in so far as it can be accurately traced, is included in the text.

Upon request of the Museum, I have also included a few photographs of figurines and pottery from Tlapacoya and related sites. In this way, all the Tlapacoya material at the Heye Foundation has been brought together here. I was happy to do this because I feel that these illustrations in the Addenda will serve to give the reader a more complete idea of the total Tlapacoya complex and

contribute to the general understanding of the period involved.

Indeed, one of my most pleasant experiences upon moving to New York has been my relationship with the Museum of the American Indian. The entire staff has been very helpful to me, tolerating my unpredictable going and coming and innumerable interruptions.

Mr. William F. Stiles deserves special applause for the outstanding task he performed in the restoration and preparation of the sherd material. The results of his skill and patience are readily seen by a glance at the photographs. Mr. Edward S. Rutsch and Mr. Wilfred J. Kelly were most helpful during my frequent visits to the Museum's Research Branch and I wish to thank them for their many kindnesses.

The photography was done by Carmelo Guadagno, who will be remembered for his excellent illustrations in *Indian Art in Middle America*, by Frederick J. Dockstader. The same high quality of his work is maintained here, where he somehow manages to bring out every detail of design, and even captures texture effectively. I am indeed most grateful to him.

I am indebted to Mr. Douglas Waugh, cartographer of the American Geographical Society, for the maps included. The line drawings are my own.

To the Museum Director, Dr. Frederick J. Dockstader, I express my deep appreciation for putting all the Tlapacoya material at my disposal. Although enthusiastically dedicated to the study of all native cultures in the Western Hemisphere, I suspect that

Mesoamerican problems have a special attraction for him. Were this not the case, the Tlapacoya collection might well have ended up swelling the contents of a contemporary New York City midden. But Dr. Dockstader's interests extend beyond forming study collections and exhibitions. It is of primary concern to him that this information be made available to all by means of publication. Through efforts such as his, we may take fuller advantage of the vast collections in our museums today.

I also want to express my appreciation to Mr. Stan Chebul and Dr. Howel Williams, Department of Geology and Geophysics, University of California at Berkeley. Mr. Chebul made the thin sections of grey ware sherds, and Dr. Williams examined them, giving me his opinion on the tempers, for which I am most grateful.

New York City
October, 1966

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TLAPACOYA POTTERY IN THE MUSEUM COLLECTION

CULTURAL SETTING

Much archaeological work has been done in the Valley of Mexico and a general chronology for the sequence of culture change has been established. The Spaniards in 1521 marveled at the great metropolis of Tenochtitlán, capital and seat of Aztec power. Now we know that for approximately two hundred years prior to the Conquest, the dominating influence of this area was felt not only in the central highlands, but east to the Gulf of Mexico and southward to Guatemala. Prior to Aztec supremacy, the lead was held by the Toltecs in Tula. Perhaps greatest of all were those who built Teotihuacán, the huge urban and ceremonial center of the Classic Period that preceded the Toltecs. In mileage, this shift of power is slight, Tula being only 50 miles north of the Valley of Mexico, and Teotihuacán far less. In other words, from approximately the year 300 A.D. to the arrival of the Europeans, central highland Mexico had been the seat of the greatest cultural and political power in northern Mesoamerica.

Far different is knowledge of the pre-Christian era. During the period commonly known as Preclassic or Formative, extending as far back as 2000 B.C., the history of cultural development in the Valley is very complex, due in part to our lack of knowledge of many

areas, but nonetheless characterized even at this early date by a series of local cultures and individual styles.

I believe there are two main facts that underlie an understanding of this period. First: central highland Mexico was marginal to a more vital area of cultural development in southern lowland Mesoamerica (southern Veracruz, Tabasco and Chiapas). There is little to indicate that the Preclassic people of the Valley of Mexico differed essentially in any way from the multitude of other local sedentary cultures of Mesoamerica, which at this time were experimenting with sculpture and modeling in clay and stone, improving agricultural techniques which were to lead to far-reaching changes in economic, social and religious structure. Particularly characteristic of these Valley peoples was the production of hand-modeled clay figurines. These are found geographically from Pacific to Gulf coasts, thinning out to the south, but nowhere were they made in such profusion as in central highland Mexico. Their abundance, artistic charm and demonstrated chronological significance in the Valley of Mexico, make them valuable time-markers for a limited area. Because of this, they have probably been over-emphasized in terms of Mesoamerican archaeology as a whole. Not slighting the craftsmanship or beauty of the figurines, what I mean to say is that these alone cannot justify a claim for cultural leadership. There are increasing indications that the key cultural development of the Preclassic was taking place in the lowland, to which central highland Mexico was peripheral.

Another important factor is the mobility of these people. In spite of, or perhaps due to, the diversity of local cultures, and a lack of any general horizon style, man did not remain at home firing a pot as need required. Ceremonial and non-utilitarian artifacts abound, and there is much evidence to support the belief in widespread travel, certainly throughout Mesoamerica and even intercontinental! And trans-Pacific? I will be concerned here with the Valley of Mexico, and I think the Tlapacoya pottery serves to increase our understanding of relationships between the Valley of Mexico, Puebla, and southern Mexico, specifically with Olmec peoples, the area of the Isthmus of Tehuantepec, Oaxaca and the Pacific Coast of Guatemala.

TLAPACOYA AND THE VALLEY OF MEXICO

How convenient for those to follow that George Vaillant worked out the El Arbolillo-Zacatenco-Ticomán sequence before digging was ever undertaken at Tlatilco and Tlapacoya! His stratigraphy at those north shore sites on Lake Texcoco provided a chronological framework which is basically adhered to today, although refined and expanded. When the excavations at Tlatilco turned up rocker-stamping, stirrup-spouted vessels, Olmec style figurines and decorative motifs, excitement was intense, as it seemed obvious that in some way we were dealing with outside-the-Valley influence in addition to the local Zacatenco tradition.

I think agreement is general that this outside influence is much in evidence, certainly in the objects placed in Tlatilco graves. But the correlation of the Tlatilco material from burials and stratigraphic cuts to that of Vaillant's sites has only recently been clarified by Tolstoy and Guénette (1965). Because Tlapacoya seems to present problems similar to those of Tlatilco, and because of certain close ties between these sites, the chronological placement of Tlatilco is of importance in the discussion to follow.

At the outset there seemed to be discrepancies between the rich burial furniture at Tlatilco and the material from the refuse deposits and grave lots recorded by Vaillant. Several theories have been advanced to account for this, but recently, after stratigraphic excavations in 1963 at Tlatilco and a comparative study of all available Tlatilco material with other nearby sites, an accurate evaluation of the problem has been presented (*see* Tolstoy and Guénette, 1965). Three Preclassic sub-phases at Tlatilco can be defined: Iglesia (earliest), Totolica, and Atoto (latest). The burials are confined to the latter, probably corresponding to a period embracing the latter part of Middle Zacatenco to the beginnings of Early Ticomán (Carbon 14 date – 500 B.C. to ? Tolstoy and Guénette, 1965, 91), possibly lasting only two or three hundred years. Among the many difficulties involved, the authors point out that first of all, there are no other comparable grave lots among Vaillant's material for this period, and with insufficient knowledge of daily service ware from Tlatilco, we are working largely

with specially produced fine pottery placed with graves. To what extent this explains away the discrepancies is hard to tell. At present the differences seem real. Of particular interest here, is the position of the Tlatilco graves in relation to Vaillant's material. This sequence serves as a chronological yardstick for dating other Valley sites such as Tlapacoya.

The excavations of the burials at Tlatilco raised new questions: did these objects not previously found in the Valley come, as was suspected, from the climax area represented at La Venta, San Lorenzo or Tres Zapotes, or indirectly from the area of the present States of Morelos or Puebla? How? Did they represent a migration of people, or were they more in the nature of traded trinkets, a lucky and fortuitous find? How powerful and lasting an influence was this? How much more might be forthcoming from other areas?

In the last fifteen years or so since Tlatilco raised these problems, much work has been done. Important highland material comes from the Tehuacán Valley in southeastern Puebla. Here, hollow Olmec-like figurines, zoned dentate stamping, rockered or straight, flat-bottomed vessels and "grater bowls" have been found on a Preclassic level of a long stratified sequence (MacNeish, 1962, 38-39). These make their appearance earlier at Tehuacán than in the Valley of Mexico. Early Preclassic remains from the Valley of Oaxaca include zoned rocker-stamping, polished black cylinders with scraped decoration, excised designs containing red paint, white-rim blackware and D type figurines, followed by the appearance of the double-line break

tentatively placed as Middle Preclassic (Paddock, 1967, 133). As at Tehuacán, most of these ceramic traits seem to antedate their occurrence in the Valley of Mexico. Excavations at La Venta, Tabasco, Chiapa de Corzo, Chiapas and La Victoria, Guatemala, specifically help clarify the whole concept of Preclassic lowland culture and further substantiate the existence of a widespread early ceramic horizon. The Olmec heartland has been identified. At the time I reported on some of the first burials at Tlatilco (Porter, 1953), the Olmec type site of La Venta was considered to be of Classic Period date, leading to considerable confusion. Happily, however, the La Venta dates have been revised, making contact between the southern lowland peoples and those of the Valley of Mexico perfectly feasible. Carbon 14 dates confirm a span of 800 to 400 B.C. for La Venta's prime development.

In relation to this Olmec sphere of influence, the Valley of Mexico is definitely marginal. Although much is made of the lowland influence in highland central Mexico at this time, present knowledge seems to indicate that this was never dominant and the Olmec and associated traits were at best mere additions to a local tradition already well established. One settlement prospering at this time was Tlapacoya.

TLAPACOYA: THE SITE

The word Tlapacoya stems from the Nahuatl word *tlapacoyan*, meaning "place to wash." To my

knowledge there are at least four Tlapacoyas, or Tlapacoyans, as it is often written. Tlapacoya in the State of Puebla was a province of the Acolhua Empire which paid cotton mantles as tribute to Tenochtitlán (Barlow, 1949, 62-64). Tlapacoya near Tres Zapotes in the State of Veracruz is a site yielding a stone sculpture (Stirling, 1943, 26) and there is still another in Oaxaca near Zimatlán. The particular Tlapacoya to which I refer here, is a small town located in the municipality of Ixtapaluca in the District of Chalco, State of Mexico. It is usually shown on maps as an island in Lake Chalco, the southernmost part of Lake Texcoco, but may also appear as a peninsula, or even a swamp (Apenes, 1947), depending on climatic conditions and the lake level. At the time of the Spanish Conquest, the old Lake Texcoco had been divided up into six smaller lakes, Lake Chalco being the most southerly. All of these have practically disappeared at the present time. Tlapacoya today is a small town near a hill of the same name, which rises from the dry Valley floor. It is easily accessible by road from Mexico City, a trip of approximately 30 to 45 minutes. The pyramid (see below) has been restored, but the general area has been rather continuously looted by pot hunters.

In 1955, the Mexican archaeologist, Román Piña Chán collected some material from the site and his wife, Beatriz Barba de Piña Chán, carried out an excavation which yielded a variety of material largely of Late Preclassic and Early Classic date. A small amount of material from two stratigraphic pits

was assigned to a Middle Preclassic Period. Later material was recovered from fourteen burials excavated in the town itself, and three tombs uncovered in the pyramid, which was constructed at three different times. The first building phase, producing a large platform, which may prove to be the earliest religious building so far discovered in the Valley of Mexico (Armillas, 1964, 301), is generally considered coeval with the pyramid at Cuicuilco. The results of this work were reported by Beatriz Barba de Piña Chán in 1956 (Barba, 1956) and is the only scientific information on the site to date. Piña Chán makes numerous references to Tlapacoya and includes it in his check list of Preclassic traits (Piña Chán, 1958, 115). The remaining references in the literature are to isolated objects attributed to Tlapacoya. A list of published illustrated material from Tlapacoya has been included on page 46. Hollow figurines, a roller stamp with carved Olmec glyphs or signs, and some pottery of Olmec style are known to be from this site (Coe, 1965b, 746). In another instance, Coe mentions Tlapacoya as having contributed Olmec objects in "reasonable numbers" (Coe, 1965b, 771). These have found their way to private collections and art dealers, but museum specimens are rare indeed.

TLAPACOYA AND THE HEYE FOUNDATION

In 1963, the Museum of the American Indian accepted as a gift from Mr. Robert L. Stolper a sherd collection from Tlapacoya.

The history of these sherds reveals a pattern all-too-familiar to persons interested in Mexican archaeology. They are believed to have been excavated at Tlapacoya in 1962 by local *huaqueros*, who first undoubtedly extracted any whole vessels, and then sold the lot without any concern for retaining any data covering the excavation of associated artifacts. The collection found its way to New York City, passing through the hands of at least two individuals, each of whom in turn screened it for salable items. Finally, the remaining sherds were offered to the Heye Foundation. Appreciating the archaeological value of Tlapacoya material and its scarcity, the Museum accepted the sherds for permanent preservation as a study collection and with the hope of restoring some vessels for exhibition. After spending some months on the collection, it seems likely that these were whole pots when buried. A great number of fragments could be joined together only to find that the remaining portions were missing. It is not improbable at all that some restored pots in hands of dealers and private collectors could be successfully completed with sherds at the Heye Foundation. The study that follows here is therefore only a description of this collection, which, in spite of its checkered career, retains much of interest for the specialist.

By the time I approached this material, the museum staff had already spent seven laborious months cleaning, gluing and restoring as many vessels and fragments as possible. There are 39 pots completely restored and more than twice that number of partial specimens consisting of at least one-fourth the entire

vessel, enabling reasonably accurate measurements to be taken. Many other sherds have been glued to one or more fragments.

Two facts were immediately apparent. First, the white-slipped ware was almost equal in abundance to the black-brown. It is impossible to ascertain if this was due to a conscious selection or not, but the proportion was striking. Secondly, a simple perusal of the entire lot indicated that most of it corresponded to a Middle Preclassic horizon, with many similarities to the Tlatilco burial material, Atoto sub-phase at that site. It is therefore with this period, roughly from 500 B.C. and following, that we will be concerned.

The vessel forms were easily distinguishable. Sorting rims, bottoms, supports and body sherds would not have been a meaningful procedure in this case. Supports of any kind were almost entirely absent. Sometimes, rim sherds may serve to distinguish decorated from undecorated vessels, but in this particular case, it would have proved misleading. As at Tlatilco, the straight-sided, flat vessel may have a heavily excised or incised design on one side only, or near the base rather than encircling the rim. There may be a single motif, unrepeatd. I was working with known shapes and decorations, even a considerable number of restored vessels. Plain, undecorated specimens were rare.

I first separated the white-slipped wares from the black-brown; this produced nearly equal sherd lots. Then I segregated vessel forms, including rims, body sherds and bases for both groups. The smaller

lots of red-on-buff and grey wares were easily isolated. The material then fell comfortably into the groups described below, plus the usual small miscellaneous category. I want to point out that this is only a convenient way of describing this collection and cannot be construed as a classification of Tlapacoya pottery. My terms, white-slipped, black-brown, red, etc., refer to surface color. The paste is not distinctive enough to use as a criterion with the exception of the grey ware.

I think it would be useful to summarize briefly some results of the excavations by Barba, since I will be referring to her report often in the pages to follow. In general, three periods were represented: Middle Preclassic, Late Preclassic and Post-classic, Aztec, in this case. The greatest amount of material pertains to the Late Preclassic which appears to have been of great duration, extending into the Classic Period; hence her designation of Tlapacoya as a transitional site. The material from the three tombs corresponds to this period. Most of the fourteen burials are not placed chronologically due to very few offerings and poorly preserved skeletal material. One is assigned a Late Preclassic date, and two are Aztec. The illustrated material shows many resemblances to the other Preclassic sites from central Mexico, but also to Teotihuacán, Oaxaca, and West Mexico, specifically Chupícuaro, Guanajuato. The figurines recovered from stratigraphic pits, the pyramid fill and the surface, yielded twenty-one Middle Preclassic and twenty-nine Late Preclassic types.

The Middle Preclassic sample was derived from two pits as follows:

Pit 1. Located low on the slopes of the hill, covered at times by Lake Chalco. Only the lowest level of material (depth 1.65–2.00 m.) yielded Middle Preclassic sherds. These, together with the two levels of later date immediately above, number 1518 sherds.

Pit 3. Located at a higher level, this pit appears on Plan 1 to be about the same altitude as the pyramid and was never under water. Middle Preclassic material pertained exclusively to the lowest of three levels (depth 1.30–1.80 m.). Total sherd count for the pit: 481.

The exact sherd count for the Middle Preclassic levels is not given, but judging from these figures and postulating equal samples from all levels, it would not total over 700 sherds. In classifying the pottery, she included material from three pits not discussed in the report, and from the fill of the pyramid. Seven types referring to surface color were distinguished as follows: Polished White, Polished Black, Dark Brown, Reddish Brown, Red-on-white, Light Brown, Yellowish Lacquer (translation is mine). Paste is described as varying between reddish to yellow or ocher with poor or uneven firing, showing a dark core in cross section. Small particles of sand and mica were used for tempering.

Forms and decorations are illustrated by drawings. I will not attempt to summarize them here. I believe that any material Barba reports that I am lacking has no significance in view of the selecting done in the Heye Foundation collection. But the features present

in the latter that are absent in her report, are of interest. These differences may be explained in two ways.

First of all, the Middle Preclassic sherds from the pits constitute a smaller sample than this collection which consists of 39 complete vessels, 87 partially restored vessels, and 1,049 sherds. Another consideration to bear in mind is the provenience of each sample. The pit material seems to represent a refuse deposit, whereas the large number of complete and nearly-complete specimens at the Heye Foundation, strongly suggests burial material in my opinion, and, if true, we may have a situation potentially similar to that of Tlatilco.

POTTERY DESCRIPTION

I. TLAPACOYA BLACK-BROWN INCISED

A. Flat open bowl with straight, outslanting or flaring walls. (Fig. 1, Plates 1, 2 and 8).

Paste: Yellowish to brown in color, fired to black or brown. Well fired, the paste is hard, showing a dark core.

Surface: Slipped on interior and exterior surfaces, often with high polish. Color: black to brown.

Shape: Open bowl, flat base, walls low with direct rim, may be straight, outslanting or flaring, (Fig. 1, a-k).

Decoration: Post-slip incised geometric design encircling exterior wall. Incising varies from medium to heavy (2 mm. max. width). No fine-line incising

FIG. 1. TLAPACOYA BLACK-BROWN INCISED FLAT BOWL

or traces of paint in incisions. As variation, part of design may have slip scraped off leaving a dull finish, and providing a contrasting field (Plate 1, *left*; Plate 8, *upper center*).

Frequency: restored or partial specimens: 60
sherds: 82
unusual sherds (see below): 3

Measurements: (average)

rim diameter:	25.12 cm.
base diameter:	17.00 cm.
height:	6.00 cm.
thickness:	0.6 cm.

Observations: The standardization of form, size and decoration is remarkable. In comparison with other types represented, this is a fine quality, well fired vessel with evenly applied slip and high polish in some cases, making it very distinctive. One restored vessel has different proportions, but shape and decoration are essentially the same (Plate 2). I find no similar Preclassic pots among published illustrations although the form is common in the Tehuacán Valley (Ajalpán Phase; MacNeish, 1962, 38) and in the lowlands at this time.

A remarkable resemblance to these specimens is seen in a vessel used by the Lacandón Indians of Chiapas (illustrated by Georgette Soustelle, 1966, Fig. 55). It forms part of a collection of the Musée de l'Homme acquired by the Soustelles in 1934 near the Jataté River.

FIG. 2. TLAPACOYA BLACK-BROWN INCISED,
FORMS AND DECORATIONS

The vessel shows the same form and incised decoration of triangles with the curious addition of another motif that looks like a tiny rocker-stamping, and a suspension hole near the rim. According to the Lacandón Indians, they found this vessel on the floor of a nearby cave and put it into use in their temple along with incense burners. The rocker-stamped (?) motif and rim perforation look like modern additions to an old pot. There is also some painting in red and black.

B. *Bowls with straight, vertical walls, flat base* (Fig. 2, 3; Plates 3, 4, 6, and 7).

Paste: Yellowish-brown in color, medium to heavy, coarse, dark core, sand and mica tempering particles plainly visible. Some specimens are finer and more evenly fired.

Surface: Slipped on exterior and usually interior. Color: black most frequent, varies to brown.

Shape: Flat bowl with straight, vertical wall to direct rim. Included here also is the bowl (Plate 4) with slightly concave walls.

Decoration: A great variety of exterior incised designs, often on lower half of wall. Designs may be in bands, panels or a single motif on one side of vessel only. Deep excising, almost carving of some designs. Roughened areas often contain remains of red paint.

Frequency: restored specimens: 5
partial specimens: 8
sherds: decorated 94, plain 120.

Measurements: (average, for type illustrated in Plate 3)

rim diameter: 15.5 cm.

height: 10.5 cm.

thickness: 0.5 cm.

Observations: There are actually two types included here. I was reluctant to divide them because paste, color and polish are the same.

Most abundant is the bowl illustrated in Plate 3. This is a type found at Tlatilco and Chalcatzingo. The style is not that of the Valley tradition and is usually considered to be evidence of Olmec influence. Actually, excising, surface scraping and several specific motifs resembling those presented here are reported from Chiapa de Corzo, Chiapas (Dixon, 1959, Figs. 24, 34). Similarities are easily recognized between this Tlapacoya type and Chiapa II and III horizons, also of Middle Preclassic date (Lowe and Mason, 1964, Figs. 7 and 11).

The second type is that illustrated in Plates 4 and 6 (*upper left*). Four or five more vessels are represented in the sherds. This type is more finely incised than the first. I do not find anything similar from the central highlands.

C. Other forms

Tecomates: 1 restored plain vessel, 10 rim fragments incised with one line below exterior rim.

Bottles? 11 body sherds show a pronounced angle, with incising on the upper portion. These suggest the very common bottle form at Tlatilco, although they

a

b

FIG. 3. TLAPACOYA BLACK-BROWN INCISED MOTIFS

could also be *tecomates*. There are 3 sherds of restricted necks; one is illustrated (Plate 24, *upper row center*). No spouts.

II. TLAPACOYA WHITE-SLIPPED

A. "*Grater bowls*," nearly flat bowl or dish, low flaring sides with incised motif on interior floor (Frontispiece, Fig. 4, Plate 10).

Paste: Brown to reddish in color, rather coarse texture with visible inclusions of sand and mica.

Surface: Interior and exterior covered with a watery white slip, uneven and sometimes streaky.

Shape: Slightly curved base, composite silhouette with straight outslanting or out-curving walls to direct rim, no supports.

Decoration: Double-line break common on interior rim (Frontispiece, Fig. 4, g-h). Interior floor incised with arcs and geometric designs within center circle, sunburst motifs (Fig. 4, b, c, e; Plate 10, *left*). Incising cuts through white slip to expose reddish base. Two large sherds are decorated with plain rocker-stamping, the only examples of this in the collection (Fig. 4 d, Plate 10, *center sherd*). Although they do not join, they could belong to the same vessel.

Frequency: partial or restored: 4
sherds: 33

Measurements: (average)

rim diameter: 25.3 cm.
height: 5.2 cm.
thickness: 0.4 to 0.6 cm.

FIG. 4. TLAPACOYA WHITE-SLIPPED "GRATER BOWLS"

Observations: The Preclassic "grater bowl" may or may not have supports, but always has an incised design on the interior floor. This is frequently a series of arcs enclosing a sunburst pattern. I think this was more decorative than functional since the incisions are seldom deep or sharp enough to effectively grate a chili or fruit. A notable exception to this are the examples from the Conchas Phase, La Victoria, which are deeply grooved and scored (Coe, 1960, 370-371, Fig. 6 k, l, 7, k-m). When a complete review of "grater bowls" is made, the highland examples may prove to be imitations of a more functional type.

The distinction might be made between these "grater bowls" and the *molcajete*, with sharp deep grooves for grating. The latter bowl came into use in Toltec times and has continued until the present. Modern *molcajetes* are made of stone instead of clay.

George Vaillant was probably the first to designate the Preclassic type as a "grater bowl" and the label has persisted. To avoid confusion with a true *molcajete*, I have retained quotation marks in referring to Preclassic "grater bowls."

This is a well-known and easily recognized vessel. Its distribution in the central highlands includes Tlapacoya (Barba, 1956, Lam. 3 b, g), Tlatilco burials and stratigraphic cuts (Piña Chán, 1958, Fig. 34, and 38; Tolstoy and Guénette, 1965, 56) and El Arbolillo (general digging, Vaillant, 1935, Fig. 21-1). The latter is a simple spherical bowl with interior floor incisions. Those at Tlatilco occur in both black and white ware, and may have tripod supports. MacNeish (1962, 38)

also reports it from the Ajalpán Phase in the Tehuacán Valley.

The "grater bowl" is one link that ties in highland Mexico at this time to the lowland cultures. It appears in the Conchas Phase of La Victoria, Guatemala (Coe, 1961, Fig. 26, i, k; Fig. 52, p-s) often as a tripod. The sunburst design itself is also shared by both areas.

The double-line break, a type of interrupted double-incised line near the rim, is characteristic of Conchas at La Victoria, has also been reported from the Oaxaca Valley (Paddock, 1967, 133), and at Tlapacoya occurs on this "grater bowl." (*See Frontispiece*).

Rocker-stamping as a decorative technique has now been reported from a number of Preclassic sites. Piña Chán illustrates examples from Tlatilco and Chalcatzingo (Piña Chán, 1955, 1958). At Tlatilco, 13 specimens have been found in graves, but the technique seems to be absent in the refuse cuts (Tolstoy and Guénette, 1965, 71). These highland examples are all of the plain type. In MacNeish's, Tehuacán sequence zoned dentate stamping is associated with the Late Ajalpán Phase (MacNeish, 1962, 38). It also seems to form part of the Preclassic complex in the recent reports from the Oaxaca Valley (Paddock, 1967, 133).

In the lowlands, it is found at El Trapiche, Veracruz (Porter, 1953, 48), La Venta, Tabasco (Drucker, 1952, Plate 17, *right*), Chiapa de Corzo (Dixon, 1959, 49), and at La Victoria, Guatemala (Coe, 1961, 49). It seems to have consistent Middle Preclassic affiliations except

FIG. 5. TLAPACOYA WHITE-SLIP FORMS

at the latter site where it is clearly earlier and presents a variety of forms. This particular decorative technique has a wide New World distribution including Honduras, Costa Rica, Ecuador and Peru to the south, and to the north forms part of the Woodland pottery tradition. For a discussion of the distribution and possible implications of rocker-stamping, see Willey (1966a, 312), and Evans and Meggers (1966, 248).

B. Bowls with straight, vertical walls, flat base (Fig. 5-c, e; Plate 11, right, 13, right).

Paste: Brown to reddish in color. There is also a small amount of fine paste, more evenly fired and thinner. Some are over-fired.

Surface: All-over slip in watery white. Fine paste sherds have a much thicker slip and usually a high polish. Black firing clouds are common.

Shape: Essentially the same as the Black-Brown Incised bowls. Ollas and *tecomates* are rare (Fig. 5, b, d, g, h; Plate 15, left and center). One effigy vessel, (Plate 16).

Decoration: Incising, excising, deep grooving most frequent. Red paint often rubbed in roughened areas after firing. Some resist painting combined with incising. Exterior decoration in panels, or single motifs on one side only; simple designs in bands are rare. Resist painting observable on 13 sherds.

Frequency: bowls with vertical walls, flat base:

partial or restored specimens: 11

sherds (48 fine paste included): 307

FIG. 6. TLAPACOYA WHITE-SLIP INCISED

ollas: 4 (Fig. 5-g; Plate 15, center)

tecomates: 11 (Fig. 5-b, d, h; Plate 15, left)

open bowls, convex walls: 3 (Plate 14, left)

bowls with laterally pinched rims: 7 (Plate 14, right).

effigy vessel; duck? 1 (Plate 16)

Measurements: (average)

bowls with straight, vertical walls, flat base:

rim diameter: 16.5 cm.

height: 13.0 cm.

thickness: 0.5 cm.

Observations: In form, motif and techniques of decoration, the flat bowls with vertical walls are the same type described as Black-Brown Incised. Certain motifs are typically Olmec such as were-jaguar profile and St. Andrew's cross (Fig. 6b, c; Plate 13, right). Complete vessels decorated with the were-jaguar profile, and very similar to the fragment shown here (Plate 13, right), have been previously illustrated. One is reported from Tlapacoya, the others from the states of Puebla, Morelos and of unknown provenience. (See Coe, 1965c, Fig. 19, 20, 21; Piña Chán and Covarrubias, 1964; Groth-Kimball, 1953, Plate 22).

Resist painting as a technique is associated with Barba's Late Preclassic material, but evidence is mounting in favor of a slightly earlier appearance in the Valley. Further mention of this is made in discussing Red-on-Buff pottery.

III. TLAPACOYA GREY

A. *Bowls with straight vertical walls, flat base* (Plate 11, left, 17).

Paste: Very distinctive ware, fine paste, well to over-fired, very hard. Uniformly grey in color all through the paste. Tempering fine, not always visible.

Surface: Often burnished or stick-polished, commonly produces a metallic sheen, interiorly and exteriorly. Uniform grey surface color.

Shape: Straight-sided bowls, flat base, essentially the same as that of Black-Brown and White-Slipped types. Other forms: plain open bowl, one dish.

Decoration: Wide grooves, shallow to deep. Grooves may measure 8 mm. in width, often filled with red paint. Decoration usually on one side of vessel only. Two sherds have oxidized or fired-white rims (Plate 23, upper row, center). One body sherd (Plate 9, right) has an incised reversed E motif.

<i>Frequency</i> : restored:	2
partial vessels:	9
sherds:	84

<i>Measurements</i> : (average)	
rim diameter:	15 cm.
height:	10 cm.
thickness:	0.4 cm.

Observations: In color and texture, this ware calls to mind the grey ware of Monte Albán, common to all periods there. Piña Chán reports a few sherds of grey ware from both Tlatilco and Chalcatzingo that may be

of this same type. He notes that it is a ware foreign to the area, possibly representing Olmec influence (Piña Chán, 1958, 50). No mention of this type ware is reported by Tolstoy and Guénette. The grey ware reported from the Santa María Phase in the Tehuacán sequence may be of this type (*See* MacNeish, 1962, 39).

Because to me this grey ware looked much like that of Monte Albán, I asked permission to sacrifice a few sherds for analysis. For comparative purposes, I chipped off two fragments from a broken Monte Albán tripod support (No. 2722) and sent them together with two grey ware sherds from Tlapacoya to Mr. Stan Chebul, Department of Geology and Geophysics, at the University of California at Berkeley. He painstakingly made four thin sections which Dr. Howel Williams kindly examined for me. Dr. Williams did not know the provenience of these sections at the time, and referred to them by number only.

His comments in summary are as follows: The tempers are very different from all the others that he has examined for Heizer, Bennyhoff and myself from the Valley of Mexico and he states he would not be surprised to learn that these sherds actually came from the Valley of Oaxaca. One of the Tlapacoya sherds made a very poor section, but was essentially the same as the other three.

Monte Albán (Sherd No. 1) "Temper consists of minute, angular chips, none more than 0.2 mm. long, of quartz, sodic plagioclase (oligoclase and sodic andesine) and sanidine, with a few flakes of biotite, and abundant, very small glass shards showing typical curved vitroclastic

textures. The temper is thus a biotite rhyolite or rhyodacite tuff, and it may well be an ignimbrite (*i.e.* a glowing avalanche deposit) similar to those widespread around the southern end of the Vale of Oaxaca, as around Mitla. The temper differs radically from all those seen by me from the Valley of Mexico, almost all of which are pyroxene, and/or hornblende andesites and dacites."

Tlapacoya (Sherd No.3) "Again, essentially similar to No.1, the principal differences being that the temper is slightly coarser, and the small arcuate glass shards are accompanied by many bits of colorless pumice, up to 0.3 mm. across. The cellular and fibrous pumice-glass is perfectly fresh.

If, as I think, the parent deposit is an ignimbrite, it must be of the poorly consolidated, *sillar* type, such as is to be found near the bottoms of some ignimbrite sheets near Mitla." (Howel Williams, personal communication, September 26, 1966).

Since grey ware was used throughout the long Monte Albán sequence, the time relationship cannot be pin-pointed further at the source area. But this analysis does suggest evidence of contact between the Oaxaca region and the Valley of Mexico during Middle Preclassic times.

Besides the grey ware, another lowland ceramic trait is the oxidized white rim, to which reference has already been made. It has been found in the highlands at both Tlatilco and Chalcatzingo (Piña Chán, 1955, 26) and possibly Tehuacán (*see* p. 36).

What I have called a "reversed E" motif may possibly be the stylization of a more complex design. But here it is used alone. (See Plate 9, *right*; Plate 6, *upper right*, and Plate 7, *right*). This is a motif also

recorded for Tlatilco (Porter, 1953, Plate 6-d), Las Bocas (Coe, 1965c, Fig. 31) and on a stone effigy axe (Coe, 1965b, Fig. 46).

IV. TLAPACOYA RED-ON-BUFF (?)

A. *Deep bowls* (Plates 18, 19).

Paste: Brown to reddish in color, dark core, tendency to be heavy and coarse.

Surface: All-over slip in buff color.

Shape: Deep bowls, high, slightly convex walls, curved base. Also plain spherical bowls (rare).

Decoration: Broad red lines or bands forming triangles and zig-zag motifs. Red often smeared or smudged horizontally as if burnished while paint were still fresh (Plate 19, *bottom*).

Resist painting: The buff colored vessel was painted by resist technique in black, exposing broad areas. These were then partially painted with broad red lines. The impression is red-on-buff, probably because the black paint has largely worn off and at times is barely visible. Resist painting is clearly present on two illustrated specimens (Plate 18, *left*, Plate 19, *upper*), and many sherds.

<i>Frequency</i> : complete or restored:	4
large fragments:	11
sherds:	104

Measurements: (average)

rim diameter:	18.9 cm.
height:	11.6 cm.
thickness:	0.4-0.8 cm.

Observations: It may be that most of the Red-on-Buff pottery was resist painted. It is apparent only in those cases where the red paint does not completely cover the buff base.

The resist painting reported by Barba from Tlapacoya belongs to the Late Preclassic horizon. Neither the illustrations or descriptions are similar to the above type.

Resist painting in the central highlands appears in most Late Preclassic sites. At Tlatilco it does not occur in grave material, but has been found in cuts also yielding Middle Preclassic sherds (Porter, 1953, 24-25). Tolstoy and Guénette mention the occurrence of small quantities of negative painting, listing this as a trait that Tlatilco shares with Ticomán (Tolstoy and Guénette, 1965, 78). Should this Tlapacoya material prove to be coeval with Atoto sub-phase, negative or resist painting would occur slightly earlier in the Valley than previously thought.

In this connection, it is interesting that Piña Chán found resist painting at Chalcatzingo along with his horizon of Olmec influence there, together with a lack of Ticomán, or Late Preclassic traits. To explain the Morelos situation, he suggests (Piña Chán, 1955, 24) that at Chalcatzingo, the Middle Preclassic culture persisted into the Late Period, adding resist painting technique to the exclusion of other Late traits. The history of resist painting is still not clear, but the technique may prove to be slightly earlier than is currently suspected in central highland Mexico. It appears in southern Mesoamerica on a Middle Pre-

classic horizon on the lowland Pacific coast in the Conchas Phase of La Victoria (Coe, 1960, 371). Usulután, a distinctive ware also decorated in a resist technique, occurs at a number of highland Guatemala sites at approximate the same time (Rands and Smith, 1965, 101, 103, 106).

V. TLAPACOYA RED

A. Simple plain curved bowls, direct rim (Plate 22, left).

Paste: Brown to reddish in color, dark core, sand and mica temper.

Surface: Slipped and painted interiorly and exteriorly in red.

Shape: Plain bowls similar to Red-on-Buff forms. Restored specimen has pinched lateral rims.

Decoration: Painted solid red, interior and exterior. One partial specimen with two incised lines encircling exterior rim.

<i>Frequency</i> : restored:	1
partial bowls:	3
sherds:	28

<i>Measurements</i> : restored specimen:	
rim diameter:	20.3 cm.
height:	10.00 cm.

VI. MISCELLANEOUS POTS AND SHERDS

Red-on-white (Plate 15, right)

Fragments with wide red bands on white slip. Shape, probably simple curved bowls. *Frequency*: 17 sherds.

FIG. 7. TLAPACOYA MISCELLANEOUS FORMS

Red outlined by incisions (Plate 22, center and right).

Represented by 22 sherds and 1 partially restored vessel. Coarse brown ware, decorated by red areas outlined by pre-slip incision. Small sherds are presumably from simple bowls, one with pinched rim.

Supports: Three fragments of plain undecorated, unslipped ware bear traces of supports. A large fragment with two legs is illustrated (Plate 25). This is Postclassic in date, decorated with a brown paint in a geometric design.

Figurine fragments: One body fragment of a large hollow figurine slipped in white (Plate 24, center row, right). One leg fragment of a brown hollow figurine (Plate 24, lower left).

Orange bowl: Deep bowl with vertical, straight sides, slightly curved base. The paste is orange-brown in color. It is decorated by incision and resist painting, also showing dark firing clouds. It is illustrated in Plate 13, left.

Black bowls: Restored vessel, plain, undecorated bowl, slightly curved base, high walls, outcurving rim (Fig. 7-g). Two restored vessels, flat base, straight-outslanting walls, no decoration except for oxidized white rims. Exterior white rim outline is unevenly defined; interior is more uniform (Plate 5). The oxidized white rim is a feature shared with Tlatilco, Chalcatzingo (Piña Chán, 1955, 26), and La Venta (Drucker, Heizer and Squier, 1959, 258). In the Tlatilco stratigraphic cuts, only two sherds were found, and these belonged to the oldest (Iglesia) sub-phase at that site, a sample too small to be of great

significance (Tolstoy and Guénette, 1965, 59, 80, 81). In the Tehuacán Valley a "grey ware with white rim" figures prominently in the final part of the Santa María Period (MacNeish, 1962, 39). This may be the same ware discussed here, but has not yet been adequately described.

DISCUSSION

Before discussing the material as a whole, I would like to review certain salient features at Tlapacoya represented in this collection.

1. *Grey ware*: The petrographic analysis of this pottery seems to suggest a Oaxaca origin, pointing to the existence of trade between the Valley of Mexico and the south.

2. "*Grater bowls*:" This is a well-defined type and one shared by highland and lowland cultures in the Middle Preclassic period. Coe has suggested it is intrusive at La Victoria. The original source is still undetermined but Tlapacoya can be added to its rapidly growing distributional record. Its usefulness as a Middle Preclassic marker is increasing.

3. *Flat bowls with low flaring walls and incised designs*: The abundance of this vessel, the uniformity maintained in size, decoration and technique of decoration, makes this diagnostic of Tlapacoya. Since these did not turn up in Barba's excavations which yielded much Late material, they can probably be assigned an earlier date. The early occurrence of the form in the Tehuacán sequence, and its

frequency at this time in lowland sites, reinforces this belief.

4. *Resist painting*: Resist painting is clearly represented in this collection by fine examples illustrating the potter's domination of the technique. In one case a rather fugitive black resist paint was combined with red lines which at first glance, seems to be simply a Red-on-Buff decoration. A more common and obvious resist technique is that illustrated in Plates 20 and 21.

Resist painting is known from a number of Late Preclassic sites. A possible explanation for its occurrence here is that this collection represents finds from a series of burials, some of Late Preclassic date and some earlier, all of which are now hopelessly mixed.

An alternate hypothesis is that this collection stems from contemporaneous lots, in which case it would logically follow that resist painting may have come into use as early as the latter part of the Middle Preclassic, if my timing is correct for other comparable features. The question cannot be settled here, but on the basis of comparative evidence (*see* page 32), and the lack of other Late Preclassic traits present, I am inclined towards the second view.

I have also mentioned many ceramic features shared by the Tlatilco burials and Tlapacoya. Most of these appear to be lowland traits intrusive in the Valley, some identified as Olmec.

A list of these intrusive features includes:

1. Predominance of flat bowls with straight, vertical walls.

2. Decoration of one side of the vessel only. This treatment of space is characteristic of Olmec style, avoiding clutter.

3. White-fired or oxidized rim.

4. Deep grooving or excising, often rubbing red paint into roughened areas.

5. Rocker-stamping.

6. Double-line break, treatment of incisions near rim.

7. Olmec motifs: St. Andrew's cross, U-element, fangs, were-jaguar profile.

8. Distinctive grey ware, probably traded north from Oaxaca.

9. I suggest adding the "reversed E motif."

What do all these bits and pieces tell us? How much do we know about Tlapacoya? It is clear that Tlapacoya was a center of important activity towards the beginning of the Christian era. The first platform of the pyramid was probably erected then, about the same time other builders across the lake were constructing one at Cuicuilco.

The great variety of pottery wares found in the three tombs and stratigraphic pits indicates contact not only with neighbors in the Valley, but also with Teotihuacán, Chupícuaro and Oaxaca. It is not difficult to imagine that Tlapacoya lay right in the path of peoples passing in and out of the Valley on their way to points in Morelos, Puebla and south to Oaxaca and the Isthmus.

If this were true of Late Preclassic times, it may

apply equally well to the immediately preceding years. Although little Middle Preclassic material was recovered in Barba's excavations, this collection seems to indicate that there is still more to be unearthed. That Tlapacoya was occupied in Middle Preclassic times seems certain, how much earlier than this is not known. The very small Middle Period sample obtained by Barba is almost useless at present, as we have no basis for comparison in the immediate area. It is possible that a situation will arise similar to that at Tlatilco, where we will be faced with grave and refuse material which is not, nor would we logically expect it to be, completely compatible.

In attempting to correlate Tlapacoya pottery presented here with the Valley chronology as we know it, I believe it would best fit into the Atoto sub-phase, that is, the latter part of the Middle Preclassic, prior to Early Ticomán. This seeming concordance could be merely a result of comparing burial lots with other burial lots and the ties may not ultimately prove to be as close as they now appear, by sharing, for example, excision, oxidized white rims, the reversed E motif, rocker-stamping and "grater bowls." It would be premature to devote much attention to the difference between Tlapacoya and Tlatilco since it involves comparing a small sample assumed to constitute a homogeneous lot, with a very large sample of known grave material. Still noticeably lacking thus far at Tlapacoya are bottles, gutter spouts, stirrup-spouts and kaolin ware. The stirrup-spout remains an enigma. This is associated at Tlatilco with many

lowland features, yet despite much new evidence from the southern key area, our data on this vessel form has not increased. No stirrup-spout has been found at Tlapacoya, nor has it been reported from Morelos or Puebla. The history of this specialized form presents an increasingly challenging problem.

Perhaps it is more meaningful to note the Tlapacoya traits lacking at Tlatilco, such as the Tlapacoya grey trade ware, the typical flat-based incised bowl and the scarcity of negative painting at Tlatilco. Possibly this Tlapacoya material slightly post-dates the Tlatilco burials, not only because of the negative painting, but also because of the variation in figurine style. A comparison of the photographs included here from Tlapacoya with the many illustrated specimens from Tlatilco, shows a slightly different elaboration. This could, of course, reflect a regional difference rather than one of time.

With further investigation, the chronological position of Tlapacoya within the Valley framework of cultures will undoubtedly be refined, but the evidence at hand seems sufficient to warrant a late Middle Preclassic date for part of the occupation of the site, more specifically, the Atoto sub-phase, as defined for Tlatilco.

Aside from the promise of further contributions to our understanding of the Valley itself, Tlapacoya is one of those sites that offers increasing evidence of Preclassic lowland influence in central highland Mexico. It has been known for some time that Tlapacoya yielded Olmec figurines, both hollow and solid

types. But until now, there seemed to be little substantiating evidence of this influence in the pottery. The Heye Foundation Collection has furnished some proof of this, and provides interesting clues as what may yet be expected from the area. If the Tehuacán preliminary chronology proves to be essentially correct, the Valley of Mexico would seem to lag slightly behind the eastern highland area in regard to lowland contacts. It might prove very rewarding to investigate sites that lie toward the southeastern end of the Valley of Mexico, and certainly to pursue excavations in the State of Puebla, which promises to yield much Pre-classic material in the years ahead.

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REFERENCE LIST OF ILLUSTRATED MATERIAL FROM TLAPACOYA

Figurines

Andrew Dickson White Museum of Art.

- 1966 Fig. 10. Small figurine with hand to head. Same specimen illustrated by Coe (1965, Fig. 189)?

Barba de Piña Chán, Beatriz

- 1956 Lam. 19, 20, 21. Three plates with line drawings.

Coe, Michael D.

- 1965 Photographs of 4 large hollow figurines and 17 small solid types.

Easby, Elizabeth K.

- 1966 Fig. 112. Photograph of figurine. Five others described.

Piña Chán, Román *and* Luís Covarrubias

- 1964 One photograph of a pair of joined female figurines from Feuchtwänger Collection.

Pottery Vessels

Barba de Piña Chán, Beatriz

- 1965 16 plates with line drawings, profiles and decorations of pottery from all Preclassic periods, 7 photographs.

Coe, Michael D.

- 1965c Fig. 20. Photograph, straight-sided bowl with were-jaguar profile.
Fig. 28. Photograph, straight-sided bowl with jaguar spot (?) design.
Figs. 57 and 71. Photographs of duck effigy vessels.

Pottery Mask

Coe, Michael D.

1965c Fig. 162. Mask found with small female figurine.

Tombs, Pyramid and Excavations

Barba de Piña Chán, Beatriz

1956 Drawings and photographs. Late Preclassic to Early Classic material.

Piña Chán, Román

1960 Fig. 17. Photograph of Tlapacoya pyramid.

Fig. 18. Photograph of tomb with contents, found within pyramidal structure.

Plate H – photograph appears in *The Jaguar's Children*, by M. Coe, page 46, Fig. 52.

Plate I – photographed and sketched in the same publication, page 30, Fig. 24.

FREQUENCY CHART

FORM	RESTORED VESSELS	PARTIAL VESSELS	SHERDS
15 black	45 black	82 black
11 { 4 white 5 black 2 grey	26 { 7 white 8 black 9 grey	605 { 307 white 214 black 84 grey
2 white	2 white	33 white
4 red-on-buff	11 red-on-buff	104 red-on-buff
1 red	3 red	28 red
Others	6	0	197
TOTAL	39	87	1049

PLATES

Left (23/4927): Black with all-over slip. Post-slip incised design encircles exterior wall. Dull design area near rim caused by scraping away slip. Restored. Rim diameter: 26.3 cm.; height: 6.8 cm.

Right (23/4926): Black-to-brown, slipped, post-slip incised continuous design. Slip scraped away to form design near rim. Restored. Rim diameter: 25.8 cm.; height: 6.0 cm.

Bowl is slipped interiorly and exteriorly but does not have a high polish. Finish is rather dull. The incised designs encircle exterior. Restored. (23/4932).
Rim diameter: 17 cm.; base diameter: 12.3 cm.; height: 9.3 cm.

Left (23/4934a): All-over slip. Incised and roughened areas contain traces of red paint. Restored. Rim diameter: 19.3 cm.; height: 12.3 cm.

Right (23/4934b): All-over slip. Traces of red paint in incised and scraped surfaces. Restored. Rim diameter: 15.5 cm.; height: 10.5 cm.

Black vase, incised design not repeated. Fine slip and polish. No traces of paint. Restored. (23/4933).
Rim diameter: 12.2 cm.; base diameter: 11.1 cm.; height: 16.00 cm.

Large plain black bowl. Only decoration is the oxidized white rim. The white outline is uneven on the exterior, more definitely marked interiorly. Restored. (23/4937). Rim diameter: 25.8 cm.; base diameter: 18.5 cm.; height: 12.00 cm.

- Upper left (23/4933a): Partial bowl with vertical walls, incised design encircles exterior; red paint in incisions; base angle indicated. Estimated height: 15.5 cm.
- Upper right (23/4965i): Black rim sherd, vertical wall bowl, all-over black slip. Reversed E motif incised; red paint in incisions. Maximum width: 11 cm.
- Center left (23/4966e): Brown body sherd with deep excising, vertical wall, interior painted red. Unique. Width: 7.5 cm.
- Center right (23/4965m): Black incised rim sherd, vertical wall. Width: 8.5 cm.
- Lower left (23/4965f): Base angle sherd, showing exterior thickening, flat base; straight almost vertical wall. Heavy, deep incising containing red paint. Interior unslipped. Height: 8 cm.
- Lower center (23/4965o): Vertical wall body sherd, incising with traces of red paint. Height: 8.8 cm.
- Lower right (23/4965k): Rim sherd, vertical wall vessel, bands of rim incising containing red paint. Height: 8.2 cm.

- Left (23/4965a): Incised designs containing red paint. Cross-hatching, St. Andrew's cross and U-element motifs.
Height of fragment: 7.5 cm.; base diameter: 11.1 cm.
- Center (23/4965b): Incised designs containing red paint probably on half of vessel only. Olmec (?) face crudely incised.
Height of fragment: 3.5 cm.; base diameter: 11.7 cm.
- Right (23/4965c): Incised motifs on part of exterior wall only. Motifs include reversed E, cross-hatching and converging triangles.
Height of fragment: 7.5 cm.; base diameter: 9.0 cm.

Upper left (23/4965n): Nearly vertical wall to direct rim. Fine polish; light brown interior slip, black exterior. Incised design with roughened areas. Height: 7 cm.

Upper center (23/4949d): Slightly flaring wall to outcurving rim. Tan color with black firing cloud. Slip scraped away in design areas between incisions. Width: 9 cm.

Upper right (23/4965L): Slightly outslanting wall, black all-over slip, incised. Width: 7.2 cm

Lower left (23/4965j): Black incised flaring rim, cross-hatching, fine polish. Width: 6.5 cm.

Lower right (23/4965h): Vertical wall to direct rim. All-over black slip, incising. Width: 9 cm.

Upper left (23/4964a): Body sherd of globular vessel, modeled arm, with incised cross-hatching. Width: 12 cm.

Upper right (23/4964b): Probably over-fired grey ware body sherd with tab. Incised reversed E motif, traces of red paint. Width: 12 cm.

Lower (23/4964c): Black rim sherd, modeled arm? Slipped on exterior only. Width: 10 cm.

From left to right:

- (23/4954k): Restored white slipped bowl with incised interior floor.
 Rim diameter: 22.5 cm.; height: 5.3 cm.
- (23/4954j): Sherd showing incised interior floor and outslanting wall to rim. White slip on interior. Exterior brown.; height: 5 cm.
- (23/4954h): Flat base sherd showing interior decorated with plain rocker-stamping. White slip. Length of sherd: 13 cm.
- (23/4954i): Rim sherd showing interior, weathered. Excised areas of design. White slip interior, black exterior. Width of sherd: 11 cm.

Left (23/4934): Restored grey ware flat bowl, metallic sheen, firing clouds. Few diagonal lines of wide excising at extreme left side of photograph, containing red paint.

Rim diameter: 15 cm.; height: 10.5 cm.

Right (23/4968): Restored white-slipped flat bowl. No decoration.

Rim diameter: 14.5 cm.; height: 13.5 cm.

Left (23/4972g): Fragment, vertical wall vessel (May be upside down?). Incised through slip to expose coarse brown ware. Width of fragment: 21 cm.
Center (23/4972a): Basal angle sherd, vertical wall vessel. White slip incised and excised. Height: 11 cm.
Right (23/4949a): Partial vessel, slipped white exterior. Rather fine incisions, fangs motif. Height: 15.7 cm.

Left (23/4969): Orange bowl fragment with vertical sides, slightly curved base. Incised and painted with resist technique in black. Height: 15 cm.

Right (23/4972b): White slip exterior, incised, probably over-fired. Black firing clouds. Design of were-jaguar profile. Height of fragment: 9 cm.; base diameter: 12.2 cm.

Left (23/4954l): Plain bowl, all-over white slip with band of cross-hatching incised through slip to base color. Restored.

Rim diameter: 28.5 cm.; height: 8.5 cm.

Right (23/4949b): Half bowl fragment with pinched rim. Orange color paste slipped all over in white. Incised and excised designs exposing base color. Maximum length: 26.8 cm.

Left (23/4960): *Tecomate* with vertical pre-slip grooves. Exterior slip white
grey firing clouds. Estimated height: 14 cm.

Center (23/4954a): Plain olla, restricted rim. Exterior slip, no decoration.
Width of fragment: 22 cm.

Right (23/4959a): Red-on-white base fragment, probably had restricted neck.
White slip exterior only. Red paint applied in wide lines.
Base diameter: 7.8 cm.; height of fragment: 9.5 cm.

White slipped and incised. Additional vertical band of incising on lower front body. Red paint in incisions. Partially restored. (23/4961). Height: 13.5 cm.; estimated length: 21 cm.

Upper left (23/4966a): Rim sherd, vertical wall to direct rim. Wide excised design containing red paint. Width of fragment: 15 cm.

Upper right (23/4965g): Rim sherd, vertical wall, metallic sheen. Excised design contains red paint. Height of fragment: 10 cm.

Center (23/4966b): Grey ware sherd. Excising contains red paint. Width of fragment: 4 cm.

Lower left (23/4965c): Rim sherd, unusually thick (0.8 cm.) Excised diagonal lines filled with red paint. Width of fragment: 7 cm.

Lower right (23/4966d): Body sherd, excising combined with incisions and red paint. Unusually thick (0.8 cm.). Width of fragment: 10 cm.

Left (23/4941a): Deep bowl decorated with resist painting in black or brown. Buff areas painted with red bands. Restored.

Rim diameter: 16 cm.; height: 10.5 cm.

Right (23/4940): Deep bowl. If resist technique was used, it is not apparent on this specimen. Restored.

Rim diameter: 23 cm.; height: 14.5 cm.

Upper (23/4942b): Red-on-buff lines, circles in buff or yellow with resist technique. Width: 15 cm.

Lower (23/4956): Red-on-buff sherds showing dragging of paint. Probably resist technique filled in with red lines. Width: 18 cm.

Left (23/4941b): Resist painting in white on brown vessel. Decoration in two panels. Light brown interior. Rim diameter: 13.5 cm.; height: 5.0 cm.
Right (23/4955): Black to brown decoration on white slip. Traces of wide red band of paint in center. Rim diameter: 16 cm.; height: 12.5 cm.

Upper left (23/4972d): Vertical wall to direct rim. Resist painting in brown on white slip, also incised. Width: 13.5 cm.

Upper right (23/4958b): Thin, straight wall rim sherd. Brown interior, exterior slipped in white. Circles in resist technique. Dark firing cloud. Height: 10.5 cm.

Lower left (23/4958a): Base angle to rim sherd, flat bottom, nearly vertical wall. Fine cream slip, resist painting in brown. Height: 6 cm.

Lower center (23/4958c): Body fragment, resist painting in brown on white. Width: 6 cm.

Lower right (23/4972): Base angle sherd, flat base, vertical walls. Interior white. Resist painting in brown on white. Cross-hatching incised fields and excising. Width: 9.5 cm.

Left (23/4942e): Red painted bowl, pinched lateral rims with exterior rim incisions. Restored. Rim diameter (length): 20.3 cm.; height: 10.00 cm.

Center (23/4942d): Plain bowl rim sherd, red bands outlined by incisions, red interior. Width: 13 cm.

Right (23/4942a): Black-brown fragmented bowl. Fields of design incised, then painted red. Interior brown. Height: 11 cm.

Upper left (23/4949c): Brown punctate body sherd. Width: 4 cm.

Upper center (23/4966d): Grey ware, rim sherd of plain bowl. Fired white or oxidized interior and exterior rim. Incising on exterior only. Height: 6.2 cm.

Upper right (23/4965e): Basal angle sherd, flat base. Slipped all over, high black polish. Zoned punctate decoration. Unique example. Width: 8 cm.

Lower left (23/4972f): White-slipped body sherd with incising. Fine polish. Animal motif? Width: 7 cm.

Lower right (23/4972e): Globular body fragment with cross-hatched incising through white slip. Dark red paint in upper right-hand corner. Width: 7.6 cm.

Upper left (23/4954b): Hollow handle fragment with hole; no slip, polish or decoration. Brown. Length: 15 cm.

Upper Row:

Left (23/4959c): Rim sherd, *molcajete*, red paint on buff. Exterior plain brown. Sharp incisions on interior floor. Width: 13 cm.

Center (23/4959d): Restricted neck sherds, red-on-buff, bottle or olla, unslipped interior. Width: 11.5 cm.

Right (23/4954c): Flaring rim sherd, with tab. Grey exterior, tan interior. Width: 6.5 cm.

Middle Row:

Left (23/4954f): Fragments of lid? Unpolished, no paint, incised lines on exterior, rough interior. Width: 9.5 cm.

Center (23/4959b): Interior floor sherd, painted red lines on polished yellow or buff. Width: 9.5 cm.

Right (23/4954e): White slipped fragment of hollow figurine body. Height: 10.5 cm.

Bottom Row:

Left (23/4954g): Brown, hollow figurine leg. Height: 8 cm.

Left center (23/4954d): Plain brown, undecorated rim sherd. Width: 16 cm.

Right center (23/4942c): Fine paste, rim sherd fragment, red with pre-fired carving, remains of white paint. Diagonal white lines on interior. Post-classic. Width: 7.2 cm.

Right (23/4974b): Spherical bowl rim sherd, brown with three painted white bands. Width: 13.2 cm.

Large fragment of tripod or tetrapod vessel. Brown with post-slip painting in tan. Fine interior polish. Supports are also perforated at base (23/4974a). Total height: 9 cm.; estimated base diameter: 10.5 cm.

ADDENDA

The figurines and pottery illustrated in the plates that follow are also from the Heye Foundation collections. They were not acquired together with the pottery reported here, but are included since they are either from Tlapacoya or allied sites coeval in time. These have not been published previously, so it is my hope that they will be of interest to many.

Figure with elaborate hat or headdress, cloak and ballgame "belt"? The cloak extends to the floor posteriorly forming a third support. Reddish-brown in color, unslipped.

Provenience unknown, said to be Tlapacoya (18/9304). Height: 14 cm.

PLATE B

Female figure wearing scalloped skirt, necklace and headdress. Slipped in white with traces of red paint. Very fine paste. Forms a pair with Plate C. Provenience unknown, probably Tlapacoya (23/4630). Height: 11.5 cm.

Masked male figurine with elaborate headgear, dressed in loin cloth, knee and ankle guards. Possibly a ball-player. Fine paste, slipped in white, with traces of red paint. Forms a pair with female in Plate B.

Provenience unknown, probably Tlapacoya (23/4631). Height: 12.7 cm.

PLATE D

Female figurine holding a child, simply executed, Brown ware, no paint.
Provenience: Las Bocas, Puebla (23/5813). Height: 6 cm.

Figurine showing Olmec influence in style of body and stance. White slip with traces of red paint.

Provenience: Las Bocas, Puebla (23/6498). Height: 15.2 cm.

Olmec type figurine. Slipped in white, perhaps slightly overfired. Paste is reddish-orange in color. Traces of red paint in mouth.

Provenience: unknown, said to be Tlapacoya (23/5495). Height: 7.6 cm.

Seated hunched figurine with outstretched legs; one missing. Brown, no paint. Arms are unusually crude. Provenience: Tlapacoya (23/6823). Height: 8 cm.

Brown figurine in elaborate costume, wearing a mask. Cloak forms a base support at the rear. Traces of red paint.

Provenience: Tlapacoya (23/6822). Height: 13.2 cm.

Large hollow brown ware figure; stubby arms incomplete. Incised decoration over left eye and on back of head. This figure was part of the first finds made at the Tlapacoya site (24/797). Height: 34.5 cm.

Three figurines from Las Bocas, Puebla.

Left (24/795): Cream slip, with traces of red paint on mouth and turban. Height: 11.5 cm.

Center (23/6824): Cream slip, with red paint on headaddress, mouth, navel, hands and feet. Height: 8.3 cm.

Right (24/794): Cream slip, with red paint on headaddress, face, navel, hands and feet. Similar to Plate E. Height: 12.5 cm.

Small black effigy vessel representing a seated animal with protruding jaw. Incised lines indicate backbone and ribs. Traces of red paint (23/8716).

Provenience: Las Bocas, Puebla. Height: 7 cm.

Double-lobed *tecomate*; white with red bands of color (15/5718).
Provenience: Las Bocas, Puebla. Height: 7 cm.

Burnished dark grey *tecomate* with fine lustre. Excised and incised design containing red paint extends down from the rim on one side only (23/7832).
Provenience: Las Bocas, Puebla. Height: 10 cm.

Black ware bowl, excised and incised in panels with traces of red paint. Flat bottom with sloping sides. This bowl is unusual in that it originally had tripod supports, now missing.

Provenience: Tlapacoya (24/792). Height without supports: 5.5 cm. Diameter at top: 28 cm.

Black ware vase with tall sides tapering towards flat base. Incised designs filled with red paint. Pre-slip grooves encircle upper waist of the vessel. Exterior rim thickening is unique.

Provenience: Tlapacoya (24/456). Rim diameter: 18.5 cm.; height: 22.5 cm.

Cream-colored cylindrical bowl, decorated by deep incising and cross-hatching with incisions filled by red-orange paint. Additional decoration of very pale orange spots and zig-zag designs encircle rim and base, but do not show in the photograph.

Provenience: Las Bocas, Puebla (24/793). Height: 10.5 cm., diameter: 8 cm.

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